CADET

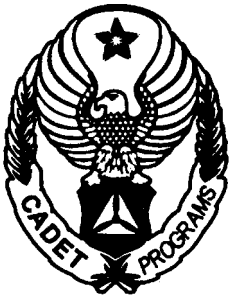
FLIGHT ORIENTATION

PROGRAM

SYLLABUS

Cadet: _____

CAP Form 77, October 1997 PREVIOUS EDITIONS WILL NOT BE USED.



The Cadet Orientation Flight Program is designed to introduce cadets to general aviation flight operations. The program is voluntary and primarily motivational; it should stimulate the cadet's interest in and knowledge of aviation and aerospace activities. Each new cadet should receive an orientation flight as soon as possible after joining. Subsequent flights should be based on the cadet's progress through the Cadet Program. Remember, cadet orientation flights in CAP aircraft are restricted to cadets 17 years of age and younger.

An orientation flight must include at least 30 minutes of actual flight time, preferably conducted in the local flying area. Each flight should conform to the profile described herein, and be consistent with safety, aircraft capability, and available resources. Cadet orientation flights may only be performed during daylight hours and in visual meteorological conditions (VMC). The following maneuvers are prohibited: turns exceeding 30° bank (except gliders), approach to a stall, stalls, spins, all aerobatic maneuvers, unusual attitudes, and practice emergency procedures. Except for takeoff, landing, and other critical phases of flight, cadets may be permitted to handle the controls. The pilot-in-command's (PIC) position will be the left seat, regardless of ratings, unless designated as a wing instructor pilot or wing check pilot.

Cadet orientation pilots will be qualified and selected in accordance with CAPR 60-1, *CAP Flight Management*. The number of cadets onboard the aircraft is limited only by the number of authorized passengers for that type aircraft, based on weight and balance. For example, a Cessna 182 can normally hold one pilot and three cadets, whereas a twin can hold more. It is the responsibility of the cadet orientation pilot to carefully brief all cadets on the proper ways to operate around aircraft. Anytime a cadet must exit an aircraft for changing seats or departing/entering the aircraft, the engine must be shut down. At all times, **SAFETY** should be the overriding concern.

Cadets should carry the appropriate record card with them on their flight. Upon completion of the flight, the squadron commander, or representative, ensures that all information on the card is accurate and complete. The squadron commander will transpose the information to a CAPF 7, *Cadet Listing of Special Activities*. Completed CAPFs 7 will be forwarded directly to HQ CAP/CPR, with a courtesy copy to wing headquarters. Squadrons should also retain a copy for their records, and keep on file for at least 1 year. Forward CAPFs 7 within 2 weeks of flight (faxes are acceptable). CAPFs 77 will be maintained in the cadet's personnel record.

Cadets are able to fly as much as possible, but only five front-seat and four back-seat flights will be reimbursed by National headquarters. Flights are funded at $15 for front seat, $5 for back seat, and $25 for glider flights. Reimbursements are processed at the beginning of each month, for the previous month, and set directly to wing headquarters. Cadet Orientation Flight Reports will be sent to each wing and unit, replacing all information previously shown on the Monthly Membership Listing (MML). Corrections to these reports need to be submitted to HA CAP/CPR within 30 days of original flight date.

Although each wing determines the appropriate use of orientation flight reimbursements, it is recommended that the money be used to offset legitimate costs incurred for the flight, then disseminated to the units who flew cadets during the reimbursement period.

SAFE FLYING!!!

Serial Number _____ Charter Number _____

Name (Type or Print) _____ Date _____

Check all that apply: ☐ Powered Aircraft ☐ Glider
☐ Other (specify):

Flight No. I - Preflight Inspection, Normal Takeoff, and Landing.

1. **Preflight Inspection**. Using appropriate checklist, demonstrate routine preflight inspections, showing cadet what is inspected, what to look for, and why.

2. **Before Takeoff:**
   a. Using checklist, show cadets how the routine cockpit checks are made prior to takeoff.
   b. Point out procedures in starting the engine and the safety precautions to be observed. Point out launch procedures for gliders.
   c. Describe the use of controls while taxiing and point out safety precautions to be observed.
   d. Explain selection of runway and engine run-up.

3. **During Takeoff**. Call attention to acceleration, moment when airborne, normal climbing attitude, and use of tachometer. For gliders, describe aero-tow or ground launch.

4. **In Flight**:
   a. Point out position and attitude of aircraft in normal flight with various throttle and control positions. For gliders, point out significance of different airspeeds and use of drag devices.
   b. Point out familiar landmarks, prominent ground features, and position of airport with respect to surrounding community.
   c. Describe approach to traffic pattern; explain reasons for contact with control tower and other aircraft before entering traffic pattern; and call attention to correct procedures for entering traffic pattern, glide angle, normal landing, taxiing aircraft to parking area, and engine shutdown.

5. **Post Flight**. Answer questions pertaining to the flight and **stress SAFETY**.

Aircraft # /Type (Corporate only) _____ Actual Flight Time _____ Location _____

Cadet Signature _____ Orientation Pilot Signature _____

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature _____

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number _____ Charter Number _____

Name (Type or Print) _____ Date _____

Check all that apply: ☐ Powered Aircraft ☐ Glider
☐ Other (specify):

Flight No. 2 - Normal Flight Maneuvers.

1. **Preflight**. Discuss Flight No. I as appropriate.

2. **In Flight**. The pilot will perform the following flight maneuvers at a minimum altitude 2500 feet AGL (1000 feel AGL for gliders). :
   a. Point out how aircraft will regain normal attitude "hands-off" from a shallow (not to exceed 5º of pitch) climb or dive. Demonstrate use of trim controls.
   b. Point out how aircraft will maintain turn with controls neutral.
   c. Demonstrate effects of drift and methods of correction.
   d. Demonstrate coordinated and uncoordinated shallow turns.
   e. Demonstrate straight and level flight, and flying with visual reference to checkpoint and horizon..

3. **Post Flight**. Answer questions pertaining to the flight and **stress SAFETY**.

Aircraft # /Type (Corporate only) _____ Actual Flight Time _____ Location _____

Cadet Signature _____ Orientation Pilot Signature _____

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature _____

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number _____ Charter Number _____

Name (Type or Print) _____ Date _____

Check all that apply: ☐ Powered Aircraft ☐ Glider
☐ Other (specify):

Flight No. 3 - Use of Instruments In Flight.

1. **Preflight**. Discuss previous flight as appropriate.

2. **In Flight**:
   a. Explain use and relationship between altimeter and vertical velocity indicator. Discuss variometer for gliders.
   b. Demonstrate effect of shallow (not to exceed 5^{o} of pitch) dives and climbs on RPM. For gliders, demonstrate effects of dives and climbs on the variometer.
   c. Point out how attitude and airspeed are related.
   d. Demonstrate effect of turns on compass.
   e. Demonstrate uses of other instruments installed in aircraft.

3. **Post Flight**. Answer questions pertaining to the flight and **stress SAFETY**.

Aircraft # /Type (Corporate only) _____ Actual Flight Time _____ Location _____

Cadet Signature _____ Orientation Pilot Signature _____

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature _____

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number _____ Charter Number _____

Name (Type or Print) _____ Date _____

Check all that apply: ☐ Powered Aircraft ☐ Glider
☐ Other (specify):

Flight No. 4 - Navigation.

1. **Preflight:**
   a. Discuss previous flights as appropriate.
   b. Explain the use of basic navigation instruments: clock, altimeter, airspeed indicator, and magnetic compass.
   c. Explain use of pilotage and dead reckoning.
   d. Assist the cadet in planning a 30-minute flight using pilotage or dead reckoning. For gliders, emphasize the need for a cross-country checklist and pre-trip planning.
   e. Demonstrate preflight weather briefing and its importance.
   f. Assist the cadet in making and filing a flight plan. For gliders, assist the cadet in making a glide table for each part of the flight.
   g. Chart course, using pilotage or dead reckoning navigational procedures, and plan ETA. For gliders, emphasize land-out planning.

2. **In Flight**:
   a. Assist cadet in navigating.
   b. Show cadet desirable checkpoints along routes..

3. **Post Flight**. Answer questions pertaining to the flight and **stress SAFETY**.

Aircraft # /Type (Corporate only) _____ Actual Flight Time _____ Location _____

Cadet Signature _____ Orientation Pilot Signature _____

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature _____

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number _____ Charter Number _____

Name (Type or Print) _____ Date _____

Check all that apply: ☐ Powered Aircraft ☐ Glider
☐ Other (specify):

Flight No. 5 - Weather Flight.

1. **Preflight**:
   a. Discuss previous flights as appropriate.
   b. Identify types of clouds. Explain air conditions associated with them. For gliders, emphasize their relationship to lift.
   c. Explain temperature differences at altitudes and how altitude affects rate of climb.
   d. Point out how terrain affects air stability
   e. Explain air conditions which affect visibility.

2. **In Flight**:
   a. Point out effects of weather on **safety**.
   b. Point out weather phenomena discussed during preflight as conditions exist.

3. **Post Flight**. Answer questions pertaining to the flight and **stress SAFETY**.

Aircraft # /Type (Corporate only) _____ Actual Flight Time _____ Location _____

Cadet Signature _____ Orientation Pilot Signature _____

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature _____

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

SUGGESTIONS FOR BACK-SEAT FLIGHTS

Flying back seat during a cadet orientation flight affords a great opportunity for cadets to become familiar with scanning techniques. This will help prepare them to become and effective scanner/observer when they transition into senior membership. Below are some ideas of what can be done to get the cadets started in their training.

Flight #6

Using a sectional chart (expired ones are acceptable), look for prominent landmarks and their corresponding position on the sectional. Practice maneuvering the sectional to adjust for changes in direction.

Flight #7

Continue practice with sectional chart. Ask the pilot to discuss the different types of wreckage pattern. Look for these kinds of signs (i.e., break in plow patterns in a field) and mark them on the sectional. Practice using the clock-position system when calling out directions.

Flight #8

Make observations of the surrounding weather and notate how different conditions change the orientation flight.

Ask your squadron commander for a copy of the Probability of Detection (POD) Chart. Using data supplied by the orientation pilot (altitude, visibility, etc.), practice calculating PODs for different scenarios.

Flight #9

Ask you squadron commander for a copy of the Cumulative POD Chart and calculate cumulative PODs based on your flight. Share with your pilot the findings; ask for a particular object on the sectional to look for. Practice finding as many objects as possible.

SAFETY FIRST

Serial Number | Charter Number

Name (Type or Print) | Date

Flight No. 6 - Back-seat Flight.

Cadet Signature | Orientation Pilot Signature

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number | Charter Number

Name (Type or Print) | Date

Flight No. 7 - Back-seat Flight.

Cadet Signature | Orientation Pilot Signature

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number | Charter Number

Name (Type or Print) | Date

Flight No. 8 - Back-seat Flight.

Cadet Signature | Orientation Pilot Signature

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!

Serial Number | Charter Number

Name (Type or Print) | Date

Flight No. 9 - Back-seat Flight.

Cadet Signature | Orientation Pilot Signature

This form has been verified with the MML as to the correct CAP serial number and name. The Cadet Orientation Flight Report has verified the eligibility of this cadet for this flight.

Squadron Commander Signature

AFTER RECORDING THIS FLIGHT AT THE UNIT LEVEL, TRANSPOSE TO CAPF 7.
FAX/MAIL CAPF 7 TO HQ CAP/CP, WITH A COURTESY COPY TO WING HEADQUARTERS.

SAFETY FIRST!